

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled).
2. (Currently Amended) The system of claim ~~129~~, wherein the top-level domain name is a non-standard top-level domain name.
3. (Original) The system of claim 2, wherein the non-standard top-level domain name is one of .com, .org, .net, .gov, .edu, .mil and .int.
4. (Currently Amended) The system of claim ~~128~~, wherein the ~~computer~~ communication network includes the Internet.
5. (Currently Amended) The system of claim ~~128~~, wherein the domain name service system~~server~~ comprises an edge router.
6. (Currently Amended) The system of claim ~~129~~, wherein the domain name service system is configured to authenticate ~~server authenticates~~ the query using a cryptographic technique.
7. (Currently Amended) The system of claim ~~128~~, wherein the domain name service system~~server~~ is connectable to a virtual private network ~~link~~ through the ~~computer communication~~ network.
8. (Currently Amended) The system of claim 7, wherein the virtual private network~~secure communication link~~ is one of a plurality of secure communication links in a hierarchy of secure communication links.

9. (Currently Amended) The system of claim 7, wherein the virtual private network is based on inserting into each data packet communicated over a secure communication link one or more data values that vary according to a pseudo-random sequence.

10. (Currently Amended) The system of claim 7, wherein the virtual private network is based on a ~~computer~~-network address hopping regime that is used to pseudorandomly change ~~computer~~-network addresses in packets transmitted between a first ~~computer~~-device and a second ~~computer~~device.

11. (Currently Amended) The system of claim 7, wherein the virtual private network is based on comparing a value in each data packet transmitted between a first ~~computer~~-device and a second ~~computer~~-device to a moving window of valid values.

12. (Currently Amended) The system of claim 7, wherein the virtual private network is based on a comparison of a discriminator field in a header of each data packet to a table of valid discriminator fields maintained for a first ~~computer~~device.

13. (Withdrawn) A method for registering a secure domain name, comprising steps of:

- receiving a request for registering a secure domain name;
- verifying ownership information for an equivalent non-secure domain name corresponding to the secure domain name;
- registering the secure domain name in a secure domain name service when the ownership information for the equivalent non-secure domain name is consistent with ownership information for the secure domain name.

14. (Withdrawn) The method according to claim 13, wherein the step of verifying ownership information includes steps of:

- determining whether the equivalent non-secure domain name corresponding to the secure domain name has been registered in a non-secure domain name service; and

querying whether the equivalent non-secure domain name should be registered in the nonsecure domain name service when the equivalent non-secure domain name has not been registered in the non-secure domain name service.

15. (Withdrawn) A computer-readable storage medium, comprising:
a storage area; and computer-readable instructions for a method for registering a secure domain name, the method comprising steps of:
receiving a request for registering a secure domain name;
verifying ownership information for an equivalent non-secure domain name corresponding to the secure domain name; and
registering the secure domain name in a secure domain name service when the ownership information for the equivalent non-secure domain name is consistent with ownership information for the secure domain name.

16. (Withdrawn) The computer-readable medium according to claim 15, wherein the step of verifying ownership information includes steps of:
determining whether the equivalent non-secure domain name corresponding to the secure domain name has been registered in a non-secure domain name service; and
querying whether the equivalent non-secure domain name should be registered in the non-secure domain name service when the equivalent non-secure domain name has not been registered in the non-secure domain name service.

17. (Withdrawn) A method for registering a domain name, comprising steps of:
(i) receiving a request for registering a first domain name;
(ii) verifying ownership information for a second domain name corresponding to the first domain name; and
(iii) registering the first domain name when the ownership information for the second domain name is consistent with ownership information for the first domain name.

18. (Withdrawn) The method of claim 17, wherein the first domain name comprises a nonstandard top-level domain and the second domain name comprises a standard top-level domain.

19. (Withdrawn) The method of claim 17, further comprising the step of storing information corresponding to the registration performed in step (iii) in a database separate from a database storing information for standard domain name registrations.

20. (Withdrawn) The method according to claim 17, wherein the step of verifying ownership information includes steps of:

(a) determining whether the second domain name has been registered in a domain name service; and

(b) querying whether the second domain name should be registered in the domain name service when the second domain name has not been registered in the domain name service.

21. (Withdrawn) A computer-readable medium, comprising computer-readable instructions for a method for registering a domain name, the method comprising steps of:

(i) receiving a request for registering a first domain name;

(ii) verifying ownership information for a second domain name corresponding to the first domain name; and

(iii) registering the first domain name when the ownership information for the second domain name is consistent with ownership information for the first domain name.

22. (Withdrawn) The computer readable medium of claim 21, wherein the first domain name comprises a non-standard top-level domain and the second domain name comprises a standard top level domain.

23. (Withdrawn) The computer-readable medium of claim 21, wherein the step of verifying ownership information includes steps of:

(a) determining whether the second domain name has been registered in a domain name service; and

(b) querying whether the second domain name should be registered in the domain name service when the second domain name has not been registered in the domain name service.

24. (Withdrawn) The method of claim 13, wherein the secure domain name has a top-level domain reserved for secure network connections.

25. (Withdrawn) The computer-readable storage medium of claim 15, wherein the secure domain name has a top-level domain reserved for secure network connections.

26. (Canceled).

27. (Canceled).

28. (New) A system for providing a domain name service for establishing a secure communication link, the system comprising:

a domain name service system configured to be connected to a communication network, to store a plurality of domain names and corresponding network addresses, to receive a query for a network address, and to comprise an indication that the domain name service system supports establishing a secure communication link.

29. (New) The system of claim 28, wherein at least one of the plurality of domain names comprises a top-level domain name.

30. (New) The system of claim 28, wherein the domain name service system is configured to respond to the query for the network address.

31. (New) The system of claim 28, wherein the domain name service system is configured to provide, in response to the query, the network address corresponding to a

domain name from the plurality of domain names and the corresponding network addresses.

32. (New) The system of claim 28, wherein the domain name service system is configured to receive the query initiated from a first location, the query requesting the network address associated with a domain name, wherein the domain name service system is configured to provide the network address associated with a second location, and wherein the domain name service system is configured to support establishing a secure communication link between the first location and the second location.

33. (New) The system of claim 28, wherein the domain name service system is connected to a communication network, stores a plurality of domain names and corresponding network addresses, and comprises an indication that the domain name service system supports establishing a secure communication link.

34. (New) The system of claim 28, wherein at least one of the plurality of domain names is reserved for secure communication links.

35. (New) The system of claim 28, wherein the domain name service system comprises a server.

36. (New) The system of claim 35, wherein the domain name service system further comprises a domain name database, and wherein the domain name database stores the plurality of domain names and the corresponding network addresses.

37. (New) The system of claim 28, wherein the domain name service system comprises a server, wherein the server comprises a domain name database, and wherein the domain name database stores the plurality of domain names and the corresponding network addresses.

38. (New) The system of claim 28, wherein the domain name service system is configured to store the corresponding network addresses for use in establishing secure communication links.

39. (New) The system of claim 28, wherein the domain name service system is configured to authenticate the query for the network address.

40. (New) The system of claim 28, wherein at least one of the plurality of domain names comprises an indication that the domain name service system supports establishing a secure communication link.

41. (New) The system of claim 28, wherein at least one of the plurality of domain names comprises a secure name.

42. (New) The system of claim 28, wherein at least one of the plurality of domain names enables establishment of a secure communication link.

43. (New) The system of claim 28, wherein the domain name service system is configured to enable establishment of a secure communication link between a first location and a second location transparently to a user at the first location.

44. (New) The system of claim 28, wherein the secure communication link uses encryption.

45. (New) The system of claim 28, wherein the secure communication link is capable of supporting a plurality of services.

46. (New) The system of claim 45, wherein the plurality of services comprises a plurality of communication protocols, a plurality of application programs, multiple sessions, or a combination thereof.

47. (New) The system of claim 46, wherein the plurality of application programs comprises items selected from a group consisting of the following: video conferencing, e-mail, a word processing program, and telephony.

48. (New) The system of claim 45, wherein the plurality of services comprises audio, video, or a combination thereof.

49. (New) The system of claim 28, wherein the domain name service system is configured to enable establishment of a secure communication link between a first location and a second location.

50. (New) The system of claim 49, wherein the query is initiated from the first location, wherein the second location comprises a computer, and wherein the network address is an address associated with the computer.

51. (New) The system of claim 28, wherein the domain name service system comprises a domain name database connected to a communication network and storing a plurality of domain names and corresponding network addresses for communication, wherein the domain name database is configured so as to provide a network address corresponding to a domain name in response to a query in order to establish a secure communication link.

52. (New) A machine-readable medium comprising instructions executable in a domain name service system, the instructions comprising code for:
connecting the domain name service system to a communication network;
storing a plurality of domain names and corresponding network addresses;
receiving a query for a network address; and
supporting an indication that the domain name service system supports establishing a secure communication link.

53. (New) A method of providing a domain name service for establishing a secure communication link, the method comprising:

connecting a domain name service system to a communication network, the domain name service system comprising an indication that the domain name service system supports establishing a secure communication link;

storing a plurality of domain names and corresponding network addresses; and
receiving a query for a network address for communication.